

**For discussion
on 15 June 2015**

Legislative Council Panel on Health Services

Development of the Hong Kong Children's Hospital

Purpose

This paper updates Members on the recent progress on the development of the Hong Kong Children's Hospital (HKCH).

Background

2. The Government announced in 2007 to study the establishment of a Centre of Excellence in Paediatrics (CEP) to further enhance the quality of paediatric services in Hong Kong by concentrating expertise, research and training with multi-partite involvement. A Steering Committee was set up in 2008 to examine the scope of services, the operational model and the physical infrastructure of the project. A suitable site was then identified in the Kai Tak Development Area and reserved for the establishment of the new hospital. To prepare for the development of the CEP, the Hospital Authority (HA) also conducted a review of its paediatric service in 2011.

3. We briefed the Panel on the proposed development of the CEP on 12 March 2012 vide LC Paper No. CB(2)1286/11-12(07) and updated the Panel on the progress on 15 April 2013 vide CB(2)927/12-13(03). In June 2013, the Finance

Committee of the Legislative Council approved a capital funding commitment of \$13 billion for the CEP project. Subsequently, the design-and-build contract for the project was awarded in July 2013 with construction work started in August 2013.

4. The new hospital was officially named as the HKCH in February 2014. The target is to complete the construction in 2017 and commence service operation in 2018. With a total planned capacity of 468 beds for in-patient and day-patient services, HKCH will provide a non-institutional and child-friendly environment for sick children and their families as well as research and training facilities.

5. With the HKCH project entering into its construction phase, the Government has delegated HA with the responsibility of planning, building and commissioning this new hospital. The previous consultative forum under the Steering Committee has been formally migrated to the new governance structure set up in HA.

6. In planning the service capacity of hospital development projects, HA takes into account various factors, such as projected service demand, advancement of medical technology, manpower availability, physical capacity of the medical facilities, etc. On top of meeting service demand, consideration is also given to allowing future service enhancement some years ahead. Underpinned by the above principles, HA generally adopts a phased implementation approach for service commissioning of hospital development projects. The phased commissioning arrangement also has the advantage of allowing room for ironing out clinical workflow, validating the care model and allowing time for key aspects of the service to run in so that patient welfare and safety are better assured. In light of the above, HA will adopt this tried and tested method which has proven results for the commissioning of HKCH.

7. At present, there are 13 paediatric departments in HA hospitals providing a wide range of secondary and tertiary services. As at 31 March 2015, the 13 paediatric departments in HA hospitals have 1,564 beds in total, of which 1,092 beds

are for paediatrics specialty and 472 beds are for neonatology specialty. In 2014-15, the inpatient bed occupancy rates are about 72% and 98% for paediatrics specialty and neonatology specialty respectively. Details of the bed provision in HA paediatrics departments are summarised at Annex A. According to the projection by Census and Statistics Department, the population of Hong Kong aged 19 or less will be maintained at around 1.2 million in the next 10 years. The present planned capacity of HKCH, which was formulated in light of, among others, projected demand for service provision, will be sufficient to meet the future population need of paediatric services in Hong Kong.

Governance Structure & Process

8. With the positioning of HKCH as a public tertiary specialist hospital for paediatric services, HA has set up a dedicated governance structure for the project (Annex B). The Planning and Commissioning Committee (PCC) chaired by the Chief Executive of HA, and with membership that includes senior professors from the two medical schools in Hong Kong as well as experienced clinicians of good standing, provides oversight and steer to the overall project. The PCC reports to the HA Directors' Meeting and the HA Board.

9. Under the governance of PCC, a Clinical Management Committee (CMC) has been established. It comprises senior clinicians from different paediatric sub-specialties and related service areas as well as representatives from the University of Hong Kong and the Chinese University of Hong Kong to develop the paediatric service models and advise on reorganisation of sub-specialty services. A Work Group on Manpower & Training has also been formed to advise on the manpower establishment, formulate training plan and guide the development of staff recruitment and deployment model for the commissioning of HKCH.

10. More than 20 Clinical Work Groups on various subspecialties such as paediatric oncology, paediatric nephrology, paediatric surgery, paediatric cardiology and cardiac surgery, paediatric anaesthesiology, paediatric radiology and paediatric

pathology have been formed. The Work Groups are responsible for reviewing the existing service arrangement, working on the details of proposed service models and referral mechanism, working out the projected caseload to be managed in HKCH and proposing the manpower and training plan of respective sub-specialties and related service areas. In addition, cross-specialties and subspecialties Clinical Work Groups have been set up under the governance structure of the HKCH project to facilitate service coordination and collaboration in the whole service network. The deliberation process also involves communication and discussion with the existing Coordinating Committees of the specialties concerned in HA.

11. In early 2015, HA started the process of selecting and appointing Commissioning Service Coordinators for each sub-specialty and service area. All these positions are honorary appointments. The incumbents will take up the responsibility of coordinating the planning and commissioning work of respective clinical areas as well as the development of the whole paediatric service network. So far five Commissioning Service Coordinators, who are senior and experienced serving consultants in HA or senior professors from the medical schools of the two universities, have been appointed. More appointments are being planned.

12. With the smooth progressing in the construction of the new hospital, HA plans to appoint the Hospital Chief Executive designate of HKCH in 2016 to lead the detailed implementation of the project. The Hospital Governing Committee of HKCH will also be put in place in accordance with the Hospital Authority Ordinance (Cap. 113) prior to service commencement.

Recent Developments

13. The ensuing paragraphs set out the recent developments in the capital works, clinical services planning as well as manpower and training arrangement of the HKCH.

Capital Works

14. The HKCH will create a non-institutional, home-like, child-friendly environment that provides the best clinical practice under a patient-centred approach, facilitates multi-disciplinary and cross-specialty collaboration, and allows efficient and flexible use of facilities and resources.

15. The design-and-build contract for HKCH was awarded in July 2013 for building completion in 2017. The detailed design works of HKCH are in progress as scheduled. To ensure efficient and effective interfacing among the developments in the reserved hospital sites within the Kai Tak Development Area, there will be connectivity by link bridges and service tunnels. Relevant infrastructure works have been carefully planned to cater for the provision.

16. For design verification, off-site mock-up on 18 key functional areas and rooms are under construction and scheduled for completion in mid-2015. Foundation works for the construction of HKCH, which started in August 2013, have been substantially completed in January 2015. Bulk excavation works have already been started in April 2015 and are in good progress. The overall excavation and lateral support works are targeted for completion by end 2015. Pile cap and basement works are scheduled to start in the third quarter of 2015. On interfacing of utilities and with infrastructure works in the vicinity, preparation works and co-ordination with the respective utilities companies and departments are underway.

Clinical Services

17. The HKCH will serve as a tertiary specialist hospital for management of complex paediatric cases, working closely with the existing 13 paediatric departments through a hub-and-spoke model to form a coordinated service network in HA. Through the concentration of cases of complex, serious and rare diseases among children, as well as the pooling of medical expertise, advanced technology and resources, HKCH is aimed to enhance the quality of paediatric care in Hong Kong

and provide a platform to facilitate research development and professional training. In this context, the current paediatric services have to be reviewed, reconfigured and redistributed to rationalise the use of resources and facilitate the development of the overall paediatric service network.

18. Through a series of discussions, the paediatric community has made significant progress in the directions of and models of care for service development of paediatric subspecialties in HKCH. The principles are to put children at the centre of care and to endeavour to meeting their healthcare needs with more accessible and safer services. This will be achieved by centralising where necessary to improve outcomes and localising where possible to improve access, and through development of an integrated paediatric service model for children, linking primary, secondary and tertiary services in a coordinated continuum of networked services.

19. HKCH is going to function as the key player of the overall paediatric service network for the management of complex and serious cases requiring multidisciplinary intervention. At the same time, the other 13 paediatric departments in HA hospitals will continue to provide acute paediatric services, secondary and community care services in their respective communities.

20. While service planning discussions are still on-going, consensus has been reached among the paediatric expert groups on the following subspecialty areas. Each service will be supported by various disciplines and specialties with the aim of providing sustainable and quality patient care as well as facilitating research and teaching.

- Cancer Service: The HKCH will provide a one-stop cancer services to all paediatric cancer patients using a multidisciplinary integrated approach. Patients will be referred by regional hospitals for diagnosis, treatment and follow-up in HKCH. Paediatric cancer care in HKCH will foster strong collaboration among pathologists, radiologists, oncologists, anaesthesiologists, surgeons, intensivists, general paediatricians, nurses,

allied health professionals and paramedics. HKCH will provide inpatient, outpatient and day care services for the sick children. The current paediatric cancer services and expertise from Queen Mary Hospital (QMH), Queen Elizabeth Hospital (QEH), Princess Margaret Hospital, Prince of Wales Hospital (PWH) and Tuen Mun Hospital will be translocated to and centralised in the HKCH.

- Peri-operative service: Peri-operative services in HKCH will aim at providing an integrated and coordinated patient care by surgeons, anaesthesiologists, intensivists, radiologists and pathologists starting from pre- to intra- and post-operative phases. High-risk and complex surgical cases will be centralised in HKCH from the current centres in QMH, QEH and PWH. Examples of surgical services to be provided in HKCH include neonatal, urological, oncological surgeries, neurosurgery, cardiothoracic surgery and operations on ear, nose and throat.
- Cardiac service: HKCH will serve as the hub of the paediatric cardiac service while the regional hospitals will provide step-down and secondary care. Through the concentration of complex cases and medical expertise, this network aims at providing high quality and safe services to the paediatric patients with cardiac problems. The existing service and expertise in QMH will be translocated to HKCH. The new hospital will provide paediatric cardiothoracic surgeries, cardiac interventional procedures, mechanical circulatory support such as extracorporeal membrane oxygenation and ventricular assist device.
- Renal service: Hub-and-spoke model is adopted to strengthen the existing renal service. HKCH will be the hub handling complex renal disease patients and providing renal replacement therapy while the existing 13 paediatric departments in HA hospitals will provide secondary and step down care. The hospitals will work together as a network to facilitate continuum of patient care.

- **Clinical genetic service:** Significant scientific advances have been made in clinical genetics in recent years. HKCH is well-positioned to develop and provide clinical genetic service. Its primary focus will be on paediatric patients and their families. The existing Clinical Genetic Services under the Department of Health will be re-located to HKCH premises to fortify collaboration. The range of services will include clinical assessment of complex genetic cases, laboratory testing of genetic disease, functional diagnostics as well as genetic counselling.

21. Both clinical and non-clinical supporting services such as pharmacy, pathology, radiology, catering, laundry and transport have also been planned to support the operations of HKCH. Service models for the other paediatric subspecialties including endocrinology & metabolic medicine, gastroenterology & hepatology, rheumatology, immunology, neurology and respirology will also be developed to facilitate the phased implementation.

Manpower and Training

22. To prepare for service commencement in HKCH in 2018, HA has put in place a series of measures on manpower deployment, recruitment and training.

23. A central recruitment model for paediatrics doctors in HA will be introduced. The principle is to gradually have all paediatrics doctors in HA to be employed under and serve in the paediatric network in HA so as to ensure continuum of care, align the standard of service and facilitate staff rotation as well as training. Starting from 2015, all the new resident trainees in paediatrics will be employed under this new model.

24. Existing manpower and expertise serving in the paediatric subspecialties in various HA hospitals will be transferred to HKCH along its service translocation. They will form the core team of the subspecialty service. Additional workforce will

be required for certain service areas such as PICU, NICU, paediatric anaesthesia, pathology and radiology. Advance recruitment of doctors, nurses, allied health professionals and pharmacist has been initiated starting from 2015. A wide range of training programs have also been systematically arranged for targeted service areas since 2011-12 for the commissioning of HKCH.

Advice Sought

25. Members are invited to note the progress and comment on the recent developments of the HKCH.

Food and Health Bureau

Hospital Authority

June 2015

Bed Provision in HA Paediatrics Departments

	2012-13	2013-14	2014-15 (provisional)
Total number of beds in HA paediatrics departments <i>(as at 31 March of respective year)</i>	1 540	1 561	1 564
Paediatrics specialty	1 078	1 099	1 092
Neonatology specialty	462	462	472
- NICU	111	111	111
- SCBU	351	351	361
Inpatient bed occupancy rate			
Paediatrics specialty	73%	74%	72%
Neonatology specialty	98%	89%	98%

Project Governance Structure for the Hong Kong Children's Hospital



Terms of Reference of the Planning & Commissioning Committee

1. Oversee service development and organisation of Hong Kong Children's Hospital (HKCH)
2. Monitor progress of the capital project of HKCH
3. Plan for the commissioning of HKCH
4. Oversee the training of professionals in paediatrics and paediatric-related disciplines

Terms of Reference of the Clinical Management Committee

1. To develop the paediatric service models and the redistribution of the sub-specialty services
2. To formulate the training and manpower plan for professionals in paediatrics and paediatric-related disciplines
3. To formulate the engagement plan for external stakeholders, including patient groups and non-governmental organization (NGO)
4. To advise on the application of information technology in relation to paediatrics service development

Terms of Reference of the Work Group on Manpower and Training

1. To identify expertise gaps and priority training areas
2. To formulate training and manpower allocation plan
3. To advise the Planning and Commissioning Committee on the manpower establishment of the Hong Kong Children's Hospital (HKCH)
4. To guide on the development of staff recruitment and deployment model for the HKCH
5. To advise on the establishment of international collaboration with overseas children's hospitals or universities on training issues

Terms of Reference of the Research and Teaching Committee

1. To guide the development of research governance and infrastructure for the Hong Kong Children's Hospital.
2. To advise on the arrangement of undergraduate teaching for the Hong Kong Children's Hospital.

Terms of Reference of the Administrative Management Committee

1. To develop and propose operation models and policies of Business Support Services (BSS) for the Hong Kong Children's Hospital (HKCH) for consideration by the Planning & Commissioning Committee (PCC) of HKCH
2. To search and evaluate better practices and industry innovations related to the planning and delivery of BSS for the HKCH, and make recommendations to PCC
3. To provide a forum of communication amongst major users of HKCH on issues relating to strategies, feasibilities, approaches and implementation of BSS operation models and policies for the HKCH
4. To develop implementation strategies, framework and timeline for adopted BSS operation models and policies, and monitor the risks and risk mitigation measures relating to their implementation
5. To develop quality standards and key performance indicators to monitor the effectiveness of the adopted BSS operation models and policies.

Terms of Reference of the Project Steering Committee

1. To monitor progress of the project against the accepted programme, identify potential delays and decide action to be taken
2. To monitor financial progress against approved budget, identify variances and initiate remedial action
3. To monitor quality of performance and compliance with requirements, identify problems and action to be taken
4. To monitor performance of various functional working groups including planning, design, procurements, estimating, contract management, etc
5. To endorse the project design
6. To endorse membership proposed in the Project Executive Group and Hospital Authority/users representatives to attend the Project Control Group Meeting chaired by Architectural Services Department
7. To approve any subsequent variations to the project design
8. To approve the selection of furniture and equipment

Terms of Reference of the Work Group on Information Technology Support

1. To advise the Planning and Commissioning Committee on overall Information Technology applications in relation to the Hong Kong Children's Hospital (HKCH) service development
2. To guide the development of Information Technology infrastructure and systems support for the HKCH
3. To formulate the plan for application and integration of information technology in relation to HKCH's services